

AVICULTURAL MAGAZINE



VOLUME 113

No. 2

2007

THE AVICULTURAL SOCIETY

The Avicultural Society was founded in 1894 for the study of British and foreign birds in the wild and in captivity. The Society is international in character, having members throughout the world.

Membership subscription rates per annum for 2007 as for 2006: British Isles £18.00: Overseas £21.00 (plus £6.00 for airmail). (U.K. funds please). The subscription is due on **1st January of each year** and those joining the Society later in the year will receive back numbers of the current volume of the AVICULTURAL MAGAZINE.

THE HON. SECRETARY AND TREASURER, THE AVICULTURAL SOCIETY, ARCADIA, THE MOUNTS, TOTNES, DEVON TQ9 7QJ, UK.

Subscriptions and other payments can be made direct to The Avicultural Society Account, Lloyds TSB Bank PLC, 83 High Street, Sevenoaks, Kent TN13 1LG, UK. Please quote Account No. 00003950; Sort Code:30 97 49; and ensure you send your name as the account reference, or else we cannot match payments. In case of difficulty please contact the Hon. Secretary and Treasurer at the address above, or e-mail: Paul@pboulden.fsnet.co.uk

Website: **<http://www.avisoc.co.uk>**

THE AVICULTURAL MAGAZINE welcomes original articles that have not been published elsewhere and that essentially concern the aviculture of a particular bird or group of birds, or that describe their natural history. Articles should be preferably typewritten, with double spacing, and the scientific names as well as the vernacular names of birds should be given. References cited in the text should be listed at the end of the article. Line drawings, black and white or colour photographs which illustrate a particular point in the article will be used where possible and should be clearly captioned. If authors wish their eventual return, they must say so when submitting the article and write their name on the back of each photograph. Tables and graphs will also be used wherever possible but authors should be aware of the constraints of reproduction, particularly regarding the width of the page which is 105mm.

ADDRESS OF THE EDITOR

Malcolm Ellis, Hon. Editor, The Avicultural Magazine, The Chalet, Hay Farm, St. Breock, Wadebridge, Cornwall PL27 7LL, England.

AVICULTURAL MAGAZINE

THE JOURNAL OF THE AVICULTURAL SOCIETY

Vol. 113 - No. 2 All rights reserved ISSN 0005 2256

2007

MEMOIR, NOTES AND ANTHOLOGY ARISING FROM A VISIT TO BRAZIL

Part 2

by Brian A. G. Hill

The Tyrant Flycatchers (Tyrannidae) are a family of over 300 species confined to the Americas, but I saw only a few of these during my visit. Of those I saw, the kiskadees turned out to be the most ubiquitous birds of my entire trip. The Great Kiskadee *Pitangus sulphuratus* I saw in the city and its environs and the Lesser Kiskadee *Philohydor lictor* I saw many times during my voyage on the river. The Great Kiskadee's loud call to action, mimicking its name, I heard very soon after arriving at Belém. Bold in coloration, it perches atop buildings and on overhead wires. Its habits are "shrike-like, taking insects, lizards, frogs, mice and small birds" (Marchant, 1964).

Not far from the waterfront one or two Large-billed Terns *Phaetusa simplex* were seen daily, scanning the surface of the river for food. In their habitat, they were also ubiquitous. There were no gulls.

In pursuit of my desire to visit more of the locations visited by Bates, I took a trip from Belém to visit the "Pearl of the Tocantins", Cametá, from November 23rd-November 30th 2005. It was a pleasant location that was less humid than Belém and there was safe bathing in the river, provided one was cautious about the strength of the current. I made a few more observations, especially, but not exclusively, of birds. Near the port, atop dockpiles, were a few Tawny-headed Swallows *Alopochelidon fucata*. As at Belém, there were also a few Large-billed Terns. Also from the town's esplanade I saw a few White-winged Swallows *Tachycineta albiventer*.

A spot, not far out of town, became my favourite bathing place. Above the tiny beach, beneath a scattering of big trees on ground which had been cleared of shrub for the construction of a few houses with biggish paddocks, most afternoons there was a small flock of Common Ground Doves *Columbina passerina*.

In the environs of Cametá, in the earth cliffs, a pair or two of Brown-chested Martins *Progne tapera* were attending their nesting burrows, just

above the highwater line of the river. At low tide they made frequent little trips down onto the miniscule beach to garner something edible for the nestlings I presume they had in their nesting burrows. They and other small birds in the vicinity had to be wary of a couple of Cinereous Harriers *Circus cinereus* loitering, and taking short flights out over the river, then perching, watchfully, on small riverside trees.

Mid-morning November 30th 2005, from the back balcony of my hotel room I saw, but too briefly for precise identification, a raptor which had the bulk of one of the larger Neotropical *Accipiter* spp. or a Peregrine *Falco peregrinus*. Whichever it was it had the effect of silencing even the kiskadees and scattering the soaring Black Vultures *Coragyps atratus*. Moments earlier a few Feral Pigeons had also been flying around.

After I returned to Belém by an overnight boat-bus, I made some more observations on its birds. During the afternoon of December 3rd I took a couple of photos of a throng of Black Vultures scavenging at low tide along the shoreline of the fish dock. Not a pretty sight, these large fowl-sized, leggy birds, scrambled about after morsels of fish offal, discarded by the fishermen. No more than a few hours later, these same birds would take flight after a short, galloping run, and after a lapse of a few minutes would be soaring on a thermal high above, in a sky otherwise devoid of birds. Apart from one afternoon seeing a man throwing stones at some on the roof of his small house, and those similarly scarred away by keepers at Mangal das Garças, from their abundance and familiarity, I concluded that Black Vultures are generally tolerated by the citizens of Belém.

Early on the morning of December 5th, from the balcony of the hostel I was lodging at, I watched a Cocoa Thrush *Turdus fumigatus* perched on the roof of a nearby building. I also got a brief but close view of a Blue-grey Tanager *Thraupis episcopus*. A few swifts *Chaetura* sp. were flying about the neighbourhood. The following day I made another excursion to one of the locations visited by Bates. This was to the beach resort of Caripí, which was visited by Bates whilst he was based at Belém. Were Bates with us today he would find it much less changed from his day, than his collecting sites in the city of Belém. On the wide, beautiful beach, I took photos of the resting flock of Black Vultures, which I referred to in Part 1 (Vol. 111, No. 4, p.177). Coming out of the sky, as if from nowhere they assembled there from late morning until early afternoon. There were also a few, by now predictable in such habitat, Snowy *Egretta thula* and Great Egrets *Ardea alba*. The kiskadees were the Lesser, rather than the Greater, which occurs in the city.

On my return to Belém, I made another visit to Mangal das Garças. The Scarlet Ibis *Eudocimus ruber* were on the lawn on which they are fed and with them were a couple of Wattled Jacanas *Jacana jacana*. Although full-

winged they were more nervous than the ibises and would run and flutter into the meagre, though apparently adequate reed-like cover, if I or any other visitor stood and stared at them too intently or made some motion as if to approach them more closely. When they did this they showed lime-yellow, black-tipped flight feathers. Nearby to the ibises and jaçanas I also saw a few out-of-aviary Smooth-billed Anis *Crotophaga ani*.

I went into the big aviary and was met by an American Oystercatcher *Haematopus palliatus*, which became most curious about the gaps between the soles and the upper parts of my shoes, and probed them as if they were gaping oysters. In the aviary I also had nice close views of an Oriole Blackbird *Gymnomystax mexicanus* at a feeding spot. Other birds in the aviary included Red-cowled Cardinal *Paroaria dominicana*, Blue-black Grassquit *Volatinia jacarina*, Yellow-hooded Blackbird *Chrysomus ictercephalus*, Carib Grackle *Quiscalus lugubris* and Lesser Razor-billed Curassow *Mitu tormentosum*. I also went into the butterfly and hummingbird enclosure.

During the morning of December 15th 2005, while strolling around Forte do Presepio, I saw a Guira Cuckoo *Guira guira*. I tried to get closer to it, but it dodged out of view behind a buttress. Nearby on a small patch of lawn with one substantial tree, I saw a family of Cocoa Thrushes, consisting of an adult and two juveniles. The latters' food soliciting calls were like those of juvenile European Blackbirds *T. merula*. The parents may have nested up in the canopy of a nearby mango tree. The dense canopy would have hidden the nest from the attention of pedestrians passing by, also from several cats. I managed to take a photo of an immature White-necked Heron *A. cocoi* on the tideline below.

On December 20th, after a heavy rain shower, I made yet another visit to Mangal das Garças. On the lawn was an assembly of many Great Egrets, Black-bellied Whistling Ducks *Dendrocygna autumnalis* and a Wattled Jaçana. In the aviary I took photos of the Purple Gallinule *Porphyrio martinica*, the grackle ("Grauna"), Red-throated Piping-Guan *Pipile cufubi*, a Southern Lapwing *Vanellus chilensis* wading in the pool and a trio of Scarlet Ibis at the pool. Outside I got a very pleasing view of the Wattled Jaçana and nearby saw an even shyer Least Bittern *Ixobrychus exilis*.

On the evening of Christmas Eve there was a rainstorm, but Christmas Day morning was calm and peaceful and I again strolled to Mangal das Garças, on the way passing a man who had brought his pet parrot out into the street, free that morning from the usual commotion. The sky was mostly clear and there was no wind hence it was hot and humid. I just had to rest in the shade of a shelter built on pylons above the shoreline, situated to catch any breeze, and from its shade saw Fork-tailed Palm-Swift *Tachornis squamata* and another swift *Chaetura* sp. I also saw swallows *Tachycineta*

sp. and Purple Martin *Progne subis*.

A few days later, on just about my last visit in 2005, I at last got a view of those small parakeets, so common in the city, yet so difficult to see in the dense canopies of its mango trees (see Part 1, p.180). Adjacent to the military establishment, I saw a small, tight, rapidly flying flock. Mostly olive green, with the dorsal surfaces of the wings showing contrasting areas of yellow and white, and with the same screechy calls I had heard in the city, I identified them from de Schauensee (1982) as the Canary-winged Parakeet *Brotogeris versicolurus*.

When 2005 came to its close, I felt the need to move on and visit more of the locations visited by Bates. Thus on January 2nd 2006 I embarked for Santarém, a voyage of about three days and nights further upstream. The next day we negotiated the comparatively narrow, canal-like channel skirting Marajó Island (*Ilha de Marajó*), with dense jungle down to the water. On our arrival at Almeyrin, the animal life became far more interesting and made the subsequent part of the voyage more enjoyable. From the rear saloon of the boat, I and two or three other passengers watched Pink River Dolphins *Inia geoffrensis*, sporting in the water near the boat. As we were leaving Almeyrin, a Black Skimmer *Rynchops niger* was seen and several more Large-billed Terns.

During the subsequent part of the voyage, near small settlements there was the occasional Black Vulture. Its abundance seemed to be correlated with the size of such settlements and their output of offal. The boat tracked near to one bank or the other and close views, variably brief, were obtained of several species of raptor. Some took flight as we approached but others remained perched, perhaps in the expectation that the commotion caused by the boat, might flush out prey from the dense riverside vegetation. A Crested Eagle *Morphnus guianensis* was one such raptor.

On the afternoon of January 4th 2006, we disturbed a flock of Black-necked Stilts *Himantopus mexicanus* on a sandbar. Also that day I saw a Black-collared Hawk *Busarellus nigricollis*. We docked at Santarém soon after dawn on January 5th. From there I travelled about 30km (18 miles) upstream to the well-known beach resort of Alter do Chão. Bates had arrived there in early June 1852. He was so pleased "...with the situation of this settlement, and the number of rare birds and insects which tenanted the forest...", that he revisited it the following year and spent four months making collections. My visit was much briefer, but even so quite enjoyable and I made some worthwhile observations.

Near the village I saw three skimmers resting on a sandbank. I saw Oriole Blackbirds a few times, most memorably when three came close to me whilst I was bathing. They seemed to be quite common and familiar with people, not only at that spot but also in the village. Whilst waiting for

supper at a barbecue-bar above the beach, one flew down from the cover of a nearby small tree to pick up something. Similarly a Blue Ground Dove *Claravis pretiosa* was foraging for something edible, until put to flight by the too close approach of a scavenging Black Vulture.

Although Alter do Chão would quite likely have produced several more birds and other animals new to me, the weather was not conducive to watching birds in the bush adjacent to the beach. So I returned to Santarém, to lodge by the river, whose frontage was quite to my liking. Shortly after breakfast on January 9th, out of the window of my room, I saw a Fork-tailed Flycatcher *Tyrannus savana*. It perched briefly on the wires, then flew to perch on the railings of the esplanade, until disturbed by strollers. Santarém is certainly a town I would like to visit again, but driven on by my urge to visit more of the places visited by Bates, I got the boat-bus to Manaus.

The next morning several more raptors were seen from the boat, some at close range. I identified Crested Caracara *Caracara plancus*, Roadside Hawk *Buteo magnirostris* and Grey-headed Kite *Leptodon cayanensis*. The only kingfisher I saw along the main river was a Ringed Kingfisher *Ceryle torquata*. At Manaus, I made many visits to the military-run CIGS Zoo, which is also an army jungle training centre.

On view are typically South American species such as the Harpy Eagle *Harpia harpya*, Crested Eagle, Mantled Hawk *L. polionotus*, Mealy Amazon *Amazona farinosa*, Orange-winged Amazon *A. amazonica* and Festive Amazon *A. festiva*. The centrepiece of the zoo is the lake, which has several small, turfed islands, with huts on stilts with White-fronted Capuchin *Cerbus albifrons*, Brown Capuchin *C. apella*, White-bellied Spider Monkey *Ateles beizebuth*, Black-faced Spider Monkey *A. chamek* and Black Spider Monkey *A. paniscus*. I got quite good views of several Blue-grey Tanagers, an icterid, and the Solitary Black Cacique *Cacicus solitarius*. Other species of mammals on view included Collared Peccary *Tayassu tajacu*, Jaguarundi *Herpailurus yaguarondi*, Jaguar *Panthera onca*, Puma *Puma concolor*, Margay *Leoparus wiedii* and Ring-tailed Coati *Nasua nasua*.

I also made a few visits to Bosque da Ciência and had close views of a free-ranging Lesser Razor-billed Curassow, as well as seeing an Electric Fish or 'Eel' *Electrophorus electricus*, which is not, of course, a true eel. Bosque da Ciência is adjacent to a centre for research into tropical rainforest management. Manaus International Airport has a beautifully laid-out garden and ponds in front of the terminal building, and open spaces and bush nearby. Here I saw Collared Plover *Charadrius collaris*, another Fork-tailed Flycatcher, more Blue-grey Tanagers and a kingbird *Tyrannus* sp. A hummingbird probing scarlet hibiscus flowers, was in view too briefly to identify. I departed for Salvador on January 19th and during the flight saw the famous "meeting of the waters" - the blackish water of the Rio

Negro meeting the muddy brown water of the Rio Solimões to form the Rio Amazonas.

Salvador's central park has lots of big mango trees and from the dense canopies I again heard those parakeets. On the morning of the 20th, during a long walk from the city centre along the seafront, I got close views of a Ruddy Ground Dove *C. talpacoti* collecting material for a nest it was building.

Salvador was even hotter than Belém. I was walking briskly from one clump of small trees to another, grateful for the shade, when I saw a scattering of Black-and-white Monjitas *Xolmis dominicana* (a species of tyrant flycatcher) on the sand, which had just sparse patches of turf. Their posture and actions, as they went after insects and such-like, on or close to the ground, reminded me of those of the Wheatear *Oenanthe oenanthe*.

Salvador did not have much to offer by way of birds, but I think this could mostly be attributed to the hot and dry weather during my visit. I left there on January 26th. Very soon after the flight to Rio de Janeiro had taken-off, I glanced out of the window at the great, long beaches and big dunes, some now reclaimed for development, and imagined Darwin aboard the Beagle sailing along the coast, when it would have seemed desolate. The harbour was, I think, the Beagle's first port of call on the South American mainland, having a few days earlier made a brief call at the island of Fernando de Noronha.

On arrival at Rio de Janeiro, I took the bus to the city centre and as it went past a beach near the port, I saw several Magnificent Frigatebirds *Fregata magnificens*. I stayed at a hotel just a few minutes from the bay of Botofogo. Nearby was an extensive seafront and the meticulously maintained Parque do Flamengo. At one or two places, not too much frequented by people, there were a few Southern Lapwings. Strolling in the parque late on the morning of the 28th, after a rainstorm had cleared, I saw a few Ruddy Ground Doves searching for food, with a few Feral Pigeons nearby. Several Monk or Quaker Parakeets *Myiospitta monachus* were feeding amongst the turf and there were a few House Sparrows *Passer domesticus* about.

It was in the bay that I saw gulls for the first time during my trip. I first saw an immature Kelp Gull *Larus dominicanus*, then an adult, and as dusk approached, a chevron flying over, doubtless to a roost; formations of cormorants *Phalacrocorax* sp. were flying in the same direction. On the 30th a Brown Booby *Sula leucogaster* was flying around the bay. The occurrence of these sea-frequenting birds - the frigatebird, Kelp Gull and Brown Booby - at Rio, birds that are absent from the Amazon and even Belém, which is no great distance inland, can I think be attributed to the lower water temperature of the Atlantic and the greater clarity of the water, making fish and other prey more easily available.

Although a few of Rio's Feral Pigeons were much like those I had seen

in other cities, towns and villages I had visited in Brazil, the overwhelming majority strung-out along the beach and those in the Parque do Flamengo, were noticeably different in size and coloration; being smaller and overall darker. I wondered why there was this striking disparity between the mass of Feral Pigeons and the small, dark plumaged and often somewhat dishevelled birds in Rio, that looked as if they were inexpertly stuffed specimens. Most of them also seemed to be very hungry and scores of them foraged along the tideline from early morning until dusk. Some were seen pecking at coconuts, which had been discarded after the coconut milk had been drunk.

Early on the Sunday morning a man came to scatter food for them beneath a highway flyover. At the time, I was on my way to do a circuit of a lake, which had been a swamp when, from April 4th-July 5th 1832, Darwin stayed, I believe, in a cottage below the statue of Christ the Redeemer. On the lake were a few cormorants and a Great Egret or two. There was also a Moorhen *Gallinula chloropus*, whose utterances were quite different from those of the nominate subspecies found in Europe. The following afternoon, whilst strolling along the seafront, I came upon a White-faced Whistling Duck *D. viduata* with recently hatched ducklings, watched by two kiskadees, perched close by on rocks. Strolling in the parque the next morning, I saw some little Picui Ground Doves *C. picui* and again saw the Monk or Quaker Parakeets.

On February 10th 2006, I made the first of several visits to Rio de Janeiro Zoo, which is easily accessible by the metrô. As I walked from the entrance to Parque Boa Vista along the tree-lined avenue towards the zoo, I saw a Rufous-bellied Thrush *T. rufiventris* bobbing across the vehicle-free avenue beneath the big trees, as a Blackbird might in a European park. In the zoo, which is much more extensive than those of Manaus and Belém, from the sound of it, free-ranging egrets were nesting in some of the big trees. A fallen, dead one, was being eaten by Black Vultures.

On view were several species of caged raptors: Grey-headed Kite, Roadside Hawk, Yellow-headed Caracara *Milvago chimachima*, Crested Caracara, Black-and-white Hawk-Eagle *Spizastur melanoleucus*, White-necked Hawk *Leucopternis lacernulatus*, White-tailed Hawk *B. albicaudatus*, Savannah Hawk *Buteogallus meridionalis*, Harpy Eagle, King Vulture *Sarcorampus papa*. In smaller aviaries there were: Brazilian Scarlet Tanager *Ramphocelus bresilius*, Sayaca Tanager *T. sayaca*, Yellow-fronted Woodpecker *Melanerpes flavifrons* and White Woodpecker *M. candidus*. The Curl-crested Jay *Cyanocorax cristatellus*, Azure Jay *C. caeruleus* and White-naped Jay *C. cyanopogon* were the only corvids I saw on my trip to Brazil.

It was nice to see the wild-type Muscovy Duck *Cairina moschata*, a few of which I think have to be exported from time to time, to help maintain the

viability of domesticated varieties in other countries. Living free in the zoo, under the shade of its many big trees, were Black-and-white Monjitas, the tyrant flycatchers I had previously seen at Salvador.

The zoo has several species of Cracidae: Red-billed Curassow *Crax blumenbachii*, Bare-faced Curassow *C. fasciolata*, Black Curassow *C. alector*, Great Curassow *C. rubra*, Yellow-knobbed Curassow *C. daubentoni*, Black-fronted Piping-Guan *Pipile jacutinga*. I also saw Toco Toucan *Ramphastos toco*, Black-necked Aracari *Pteroglossus aracari* and Picazuro Pigeon *Columba picazuro*.

The many terraced aviaries held, it seemed, a comprehensive collection of parrots, but because I wanted to see as diverse a range as possible of South American birds, I was not able to give them as much attention as I should have.

* * *

SPECIAL INTEREST GROUPS

Corrected contact details

White-rumped Shama *Copsychus malabaricus*, Large Niltava *Niltava grandis*, Spotted Morning Warbler *Cichladusa guttata*, mockingbirds *Mimus* spp.; Bob Jewiss - Tel:01474 566775/E-mail:bobbyjewiss@blueyonder.co.uk

Additional contacts

Bulbuls Pycnonotidae and white-eyes *Zosterops* spp.; Terry Gonsolvis - E-mail:terry@ipage.co.uk

Northern or Virginian Cardinal *Cardinalis cardinalis*, Yellow or Green Cardinal *Gubernatrix cristata* and other cardinals *Paroaria* spp.; Marcus Reeves - E-mail:marcus@bayfoal.wanadoo.co.uk

A Swedish member, Bengt Larsson, who has bred the Guianan Toucanet *Selenidera culik*, is interested in the formation of a European group to cooperate on the keeping and breeding of members of the toucan family. He has located other pairs of the Guianan Toucanet in Sweden, Denmark and the Czech Republic, and has arranged to exchange one of his males from last year for a female bred this year at Olomouc Zoo in the Czech Republic.

He is also organising a Greater Hill Mynah *Gracula religiosa* group in Sweden and will extend it to Denmark, into which birds were imported from Malaysia in 2005.

Bengt Larsson - E-mail:bl@skanskbyggjtjanst.se

KEEPING AND HAND-REARING LEAR'S MACAW

Anodorhynchus leari

AT AL WABRA WILDLIFE PRESERVATION

by Simon Bruslund Jensen, Ryan Watson and Sven Hammer

Lear's Macaw is the closest living relative of the Hyacinth Macaw *A. hyacinthinus*, which it also physically resembles. The two species do however have major ecological differences. Lear's Macaw occurs in a relatively dry environment in north-east Brazil, the so-called caatinga, which is a unique habitat type consisting of mostly low scrub of, in particular, spiny and hostile looking plants. There is some scientific evidence to suggest that it has developed a close affinity to a specific plant, the Licuri Palm *Syagrus coronata*. Narrow diet specialization is rare in parrots and obviously makes the species more vulnerable because of its dependence on the availability of this limited food source. In addition, Lear's Macaw strongly favours semi-communal roosting and nesting cavities in sandstone cliffs and is not known to use other cavities for these purposes, which is also unusual amongst parrots.

The known roosting and breeding sites are limited to just two and the species is listed as Critically Endangered, but will most likely be downgraded to Endangered in the near future. In recent years the number in the wild has been increasing and there is now estimated to be over 600 individuals. The birds undertake daily flights between their feeding grounds and their roosting and nesting sites, travelling considerable distances and frequently arriving back from feeding in almost complete darkness. The primary food source, the licuri nut is highly nutritious but also extremely hard to open, but Lear's Macaw seems to be well adapted to its specific environment and for dealing with the licuri nut, and has possibly developed unusually good night vision. Much remains to be learned about this macaw and further research may hold the key to ensuring its long-term future in the wild.

Lear's Macaw is exceptionally rare in captivity, causing it to be a popular target for poachers who trap birds for the pet market. Except for two birds bred at Busch Gardens in Florida, USA and an unknown number in private collections in Switzerland, confiscated and re-possessioned birds form the captive population. The majority of birds in captivity are owned by the Brazilian Government and managed through the official environment agency IBAMA. Any other captive Lear's Macaws are essentially illegal and a product of the poaching industry, that is currently one of the biggest threats to Lear's Macaw in the wild.

In 1998, eight Lear's Macaws were secured in the Middle East and placed with Al Wabra Wildlife Preservation (AWWP), Qatar. Acknowledging

that the poaching of live birds for private parrot collectors remains a major threat to the species, AWWP decided to return the ownership of its birds to the Brazilian Government in 2003. Control of Al Wabra's Lear's Macaws having been turned over to IBAMA, AWWP was invited to join the breeding programme and help establish a viable captive population of this species.

Additional birds are held at the zoos of Rio de Janeiro and São Paulo, also by Crax and the Lymington Foundation in Brazil, with two pairs transferred recently from São Paulo Zoo to the Loro Parque Fundación, Tenerife and three further birds confiscated in the UK currently held at Harewood Bird Gardens, near Leeds (see *Avicultural Magazine* Vol.113, No.1, pp.40-43 (2007) for details of numbers and sexes, etc.). AWWP has played an advisory role since 2004 and is a member of the Committee for the Recovery of Lear's Macaw. In 2006 the Blue Macaw Coordinator for Al Wabra Wildlife Preservation was appointed co-studbook keeper and the first international studbook for the species was created.

The birds at Al Wabra Wildlife Preservation were wild-caught as adults. This became obvious when veterinary staff found a shotgun pellet in one of the birds. This had to be surgically removed. The birds have remained wary since their arrival in Qatar and have adapted poorly to captive conditions. A number of health problems, including poor kidneys, indicate that the birds had been treated poorly after capture and during transport. Although generally nervous, the macaws have developed a close relationship with their keeper and seem capable of recognising individuals and respond very differently depending on their experiences with a particular person. Research into their physiology, nutrition, behaviour and, particularly their health, is ongoing.

Different set-ups have been tried to increase the birds' well-being and improve the chances of successful reproduction. Attempts to keep the birds in social flocking conditions did not appear to stimulate breeding behaviour. In one case single sex bonding occurred between two males that could be broken only by forcefully re-pairing each male with a female and keeping the pairs separate. It was one of these pairings which eventually produced a chick. This pair calmed down considerably towards the keeper after a tame pair of Hyacinth Macaws was introduced into the adjacent enclosure. Generally large aviaries offering a good view of the surrounding landscape have been preferred but we are also experimenting with a smaller set-up in which a pair remain completely secluded with no visual contact with any other birds. All aviaries have climate controlled shelters and most outside areas are planted and have artificial rain patterns. Basically the climate in Qatar is not unlike that which rules the Brazilian caatinga and the Lear's Macaws at Al Wabra have shown themselves to be extraordinarily heat resistant and generally ignore the air-conditioned shelters even during the hottest months of the year. They do though often seem to prefer to roost

inside a sheltered area, either inside the aviary or its passageway, or even in a half-open wooden nest box. Because of Lear's Macaw's preference for cavities in cliffs for roosting and nesting, artificial substitutes have been provided, as well as the more traditional wooden nest boxes. The artificial nesting cavities are made of concrete and aim to simulate those we know from sites in the wild. It was in such a cavity (described later) that the first breeding success was achieved with Lear's Macaw at AWWP.

The Lear's Macaws at AWWP are fed a diverse diet twice a day. It includes a less popular morning feed of fruit salad and what has come to be known as Al Wabra parrot softfood mix, which consists primarily of frozen vegetables, boiled pulses, and sprouted seeds. In the afternoon the birds are offered a dry food mixture that includes seeds, pellets and nuts. The birds receive the morning feed at about 6.00am and any that is left is removed at about 10.00am. At about 2.00pm the dry food is offered and is left with the birds until the following morning. The amount of food fed to the birds is strictly controlled to prevent obesity and, more importantly, to ensure that they eat a wide selection of the foods offered to them. Birds that receive too much food in their food bowls will often eat only their favourite items and therefore eat an unbalanced diet.

The period between 10.00am-2.00pm each day is often spent resting or occupied with enrichment items such as fresh branches of eucalyptus or canár trees, half-ripe barley, corn or millets. Removing the uneaten food, including any that has fallen to the ground, prevents it from spoiling in the hot climate. This is particularly important with the sprouting seeds.

The fruit salad which is offered to all macaws at Al Wabra Wildlife Preservation, contains a wide range of fruits and vegetables. Some of these, such as papaya, apple, carrot and broccoli, as well as greenfood, comprised mainly of water cabbage, but also dandelion, spinach, parsley, celery heads and lettuce, are offered daily. These daily ingredients are supplemented with other items during the week, including tomato, cucumber, pear, orange, mango, banana, peppers, chillies, grapes and local seasonal fruits such as canár *Ziziphus spina cristis* and mulberries *Morus rubra*, giving the fruit salad a slightly different composition each day.

After having been boiled for 45 minutes, the warm seed mixture is mixed with the frozen vegetables and freshly rinsed sprouted seed mixture, forming the parrot softfood mix, to which vitamin and mineral supplements such as Calcium Sandoz® and Nekton S® are added daily, along with pure cranberry juice.

Table 1. Parrot softfood mix.

5 parts	Mixed frozen vegetables
3 parts	Boiled seed mixture
2 parts	Sprouted seed mixture
2ml/125g	100% cranberry concentrate

The mixed frozen vegetables, which include carrots, green peas, string beans and sweet corn kernels, are the standard products sold for human consumption.

Table 2. Boiled seed mixture

1 part	Chick peas
1 part	Egyptian fowl mix
1 part	Large fowl mix
1 part	White beans
2 parts	Whole corn
1 part	Green peas
1 part	Versele-Laga, Prestige-Special Dinner Mix®
1 part	Natural – Mix 2®

The sprouted seed mixture consists of Versele-Laga, Prestige Germination Seeds® and Versele-Laga, Prestige-Cockatiel Mix® mixed together 1:1. After an initial rinse it is soaked in cold water containing a small amount (1:500) of F10® disinfectant for 12 hours in a cool room. Thereafter it is rinsed thoroughly and then left in a sieve to dry and sprout for 36 hours, interrupted by a rinse every 12 hours before it is fed to the birds.

Stainless steel dishes are used for food and water, with great care being taken to keep the dishes and the feeding area scrupulously clean. Leftover food is always removed before it has time to spoil. The drinking water is thoroughly filtered, first through a 5 micron particle filter, then a 1 micron activated carbon filter and finally through a UV sterilization filter.

Regular bacteriological checks on the food and water are performed by our in-house Laboratory Department, which also undertakes regular faecal investigations of all our Lear's Macaws. The department checks for parasites and conducts fungal and bacteriology tests, as well as investigating the gut-flora balance. If an imbalance or slight infection is detected the birds are mostly treated initially with lactobacillus on their food, using PT-12® from the Re-Scha Company.

Table 3. Morning feed sufficient for two Lear's Macaws.

2 level scoops (30g)	Parrot softfood mix
½ ladle (25g)	Fruit salad
4 pieces (5g)	Zeigler - Parrot maintenance pellets®
1 teaspoon (5g)	Versele-Laga, NutriBird - P15 pellets®
4 pieces (16g)	Brazil nuts
1 ml	Cranberry concentrate (poured on nuts)

The afternoon feed includes dry seeds, pellets and nuts, item that can safely be left in the aviary until the following morning with little concern that they will spoil. By far the most popular food items are the walnuts and Brazil nuts, which are relished by the birds. Walnuts are always opened to check their quality before they are fed to the birds. Brazil nuts are purchased already shelled.

Table 4. Afternoon feed sufficient for two Lear's Macaws.

1 tablespoon (15g)	Lear's Macaw dry food mix (see Table 5)
8 pieces (10g)	Zeigler - Parrot maintenance pellets®
2 pieces	Walnuts
4 pieces	Almonds
4 pieces	Brazil nuts
1g	Crushed mineral block

Table 5. Dry food mix.

1 part	Versele-Laga Prestige - Parrot premium mix®
1 part	Versele-Laga NutriBird - P15 pellets®

The aviary in which the pair of Lear's Macaws bred successfully is a steel and aluminium structure with galvanized mesh. The aviary is 5m wide x 16m long x 8m high (approx. 16ft wide x 52ft long x 26ft high). It has natural soil in which grasses grow, as well as small eucalyptus trees, largely undisturbed by the birds. At the back there is an artificial but natural-looking earthy-coloured sandstone cliff wall made of concrete. Built into the wall are the entrances to two nesting cavities. The nesting cavities themselves are behind the wall on the second floor of a two-storey building, and enable us to manage the temperature in the nesting chambers. The nest tunnels are made of concrete and are approximately 49cm (19in) in diameter and extend in a zigzag pattern 2m-4m (approx. 6ft-13ft) into the room. The cavity entrances are about 24cm (9½in) in diameter. An air conditioning unit at the back ensures that the deeper the tunnels go the cooler it gets, e.g. it is 40°C (104°F) at the nest entrance dropping to about 30°C (86°F) at the

bottom of the nest cavity. In the bottom of the nest chamber is a 5cm (2in) deep layer of fine sand and wood shavings. The design allows us to inspect the nest chamber without alerting the birds. The inside aviaries are on the ground floor of the same building and are connected to the outside aviary through a flight hole. The room is 15m x 15m (approx. 50ft x 50ft) and it is where the birds are fed and it has additional nesting sites.

The facility has an artificial rain system which the birds use only occasionally. The interior is fitted with perches evenly spread out so as to allow plenty of flying space. There are also concrete ledges on which the birds often perch. Lear's Macaws are excellent fliers that utilize the entire flying space. They also routinely spend time on the ground.

Breeding behaviour such as mating and courtship feeding was observed for only a short period before the first breeding attempt. The fact that there was so little pair bonding activity may have been due to this having been the pairs' first breeding attempt. After the breeding season no further such behaviour was observed. With the other pairs of Lear's Macaws at Al Wabra, only limited physical affection has been observed, but the pairs are highly vocal and frequently call loudly together, which has also been observed in the wild. Also, unlike most other pairs of macaws, the breeding pair did not become aggressive towards its keeper, which was likely related to the fact that the birds were and remain naturally timid.

The first egg was laid on June 17th 2006, followed by two further eggs laid at three day intervals. Initially the parents did a good job of incubating the eggs and although they moved them around quite a bit in the nesting chamber, they were always warm and development was confirmed when the first egg was candled. However, when the eggs were suddenly found in different positions nine days after the first egg had been laid and two of the eggs were cold to touch, it was decided to remove the clutch for artificial incubation. The three eggs were replaced with two dummy eggs made of hard plastic that the parents accepted and incubated.

Examination of the three eggs quickly revealed that only one egg contained a live embryo that was developing normally. No development was visible in either of the other two eggs, which were subsequently opened and examined. One was clear and the other contained an embryo that had died at a very early stage. The remaining egg was artificially incubated at a temperature of 37.3°C (99.1°F) and with the humidity maintained at 35%-40%. Although low humidity was maintained the egg showed inadequate weight loss. The humidity was decreased to about 20% and on day 20 a pinhole was made in the shell above the air pocket to achieve a faster weight loss. At the time of hatching an estimated weight loss of 12% had been achieved. Interestingly, although the parents ended up incubating the dummy eggs in an exemplary manner, they destroyed the dummy eggs and removed

them from the nest just after the date they were scheduled to hatch.

The eggs were white and oval in shape and had some calcification granules on the surface and during egg necropsy and post hatch were found to be thick-shelled, which may help explain the poor weight loss.

Table 6. Size and weight of the eggs.

Egg code *	Size	Weight	Status
588-1-06	43.3mm x 34.4mm	28.07g	Fresh One day old
588-2-06	43.8mm x 34.6mm	26.50g	No development 14 days old
588-3-06	43.0mm x 33.0mm.	24.04g	No development 11 days old

* Includes female's stocklist number, running number of eggs for that year and the year the egg was laid.

Due to the inadequate weight loss there were difficulties with the hatching and we had to intervene. The chick was too large to rotate in the egg and was malpositioned. We opened the egg at the large end and determined that the chick was alive but had its head lodged in the small end and that the retraction of the blood vessels had not yet begun. Over the course of the following 24 hours an air pocket was made in the small end by carefully pushing the blood vessels to stimulate their retraction and create a space around the bill of the chick. After the chick had taken its first breath it commenced the external pip and with just a little assistance managed to hatch in an almost natural way, but at the small end of the egg a further 24 hours later. As the hatch was assisted, it was difficult to determine the precise incubation period, but it was within 26-28 days.

The newly-hatched chick weighed 19.26g and immediately elicited a good feeding response. The yolk sac was almost fully absorbed and the chick had passed some faecal matter whilst still in the shell. The chick had already been given fluids whilst in the shell and for the first nine hours after hatching was given fluids in the form of Lactic Ringer, 5% glucose and water mixed in equal parts. A dose of lactobacillus, especially developed for parrots by the Ludwig Maximilian's University of Munich (Klinik für Vögel, Lactobazillen Ch Nr.01/04), was administered with water on the first day. The first regular feeds consisted of a 10% powder to 90% water solution of Kaytee Macaw Exact® (with no additional supplements) fed to the chick 10 times a day and then gradually reduced to five feeds on day five, four feeds on day seven, three feeds on day 17, two feeds from day 47 and finally one

feed a day from day 102. The feeds were always evenly distributed over an 18-hour day from 5.00am-11.00pm (05.00hrs-23.00hrs), with initial feeds in the night for the first few days only. At first the chick was fed directly from a 1ml syringe, but after 10 days the food was fed directly into the crop using a soft silicone tube.

The chick was hatched in a Grumbach® incubator, after which it was kept in a Brinsea® still air Hatchmaker, initially set at 37.2°C (99°F) and then gradually lowered. It was transferred to a moving air Proffi® brooder on the third day and maintained at a temperature of approximately 36.8°C (98.2°F). On day 38 the chick was moved to a larger still air brooder set at 30.2°C (86.4°F) and finally on day 60, when it was moved to a fledgling cage, though still kept in a plastic tub, it was kept at a room temperature of approximately 26°C (78.8°F). Temperature settings were determined by the chick's behaviour. It generally seemed to prefer significantly higher temperatures than most other macaws and often when the temperature was routinely lowered, it had to be raised again. After day 68, lights were kept on during the day in the nursery and the chick slowly started to leave the tub and explore its surroundings.

The chick showed an early interest in solid food and from day 70 was offered a dish of food. Items of food were initially offered by hand and were accepted readily. Later the chick started eating a little food itself and was observed taking food regularly at 99 days. Initially the main choice of weaning food was Zeigler® parrot pellets. Shortly afterwards a wide range of foods, including fruit and vegetables, were taken. However, its preferred food remained Zeigler® pellets, together with Brazil nuts. By day 120 the chick was finally weaned off the hand-rearing formula.

Except for the first few days, the bedding used in the tubs was a commercial cat litter, Max's Catlitter®, made from rice by-products. It is digestible and almost, but unfortunately not entirely dust-free. Relative humidity of 45%-60% was maintained in the brooders and nursery rooms. Every week until weaning, swab samples were taken from the cloaca and buccal (inside the mouth/cheek) and, together with a fresh faecal sample, these were sent for bacteriological and mycological examinations.

The chick was fitted with a 16mm closed legband on day 18.

Throughout the hand-rearing there was a degree of restricted human contact with the chick and an enforced degree of contact, as it got older. After reaching fledgling age it was quickly exposed to visual contact with a group of other young parrots. In this case, five young Spix's Macaws *Cyanopsitta spixii*, housed in an adjacent cage. The Lear's Macaw chick was later kept together with the group of Spix's Macaws. It was calm and "friendly" towards these young and smaller parrots, as we had observed with young Hyacinth Macaws *A. hyacinthinus* kept with Blue-headed Macaws *Propyrrhura couloni* here at Al Wabra.

Table 7. Physical development of the chick.

Day	Development
6/8	Feather tracts visible under skin on back, flanks and thighs.
7	Bill turning darker.
9	Feather tracts visible under skin on breast.
10	Feather tracts visible under skin on wings.
13	Feather tracts visible under skin on crown.
14	Pin-feathers breaking through skin on back.
15/16	Pin-feathers breaking through skin on breast, flanks and thighs.
18	Skin darker around nostrils and on forehead. Pin-feathers breaking through skin on wings.
23	Pin-feathers breaking through skin on crown and feathering breaking through tips of pin-feathers on back, wings and of the tail.
30	Feathers breaking through pin-feathers all over body.
45/46	Head and shoulders covered with pin-feathers. Wing-flapping starts.
50	Naked skin around eyes and bill becoming yellowish.
55	Massive feather development on wings.
62	Climbing and attempting to perch.
72	Climbing out of container and sampling items of food. Tail more than 20cm (8in) long.
83.	Hard items of food felt in crop.
85	First flight in excess of 1m (3ft 3in).
95	Tail more than 30cm (1ft) long.
99	Observed taking food regularly.
120	Completely weaned.
150	Post-fledging moult.

The chick's weight gain was initially relatively fast, with an average gain of 7.2% on that of the previous day. The highest weight gain was 21.4% on day four. A peak body weight of 868g was achieved on day 58. Post peak this levelled off to just above 700g on about day 105 and then slowly increased to 750g by day 150.

Meticulous records have been kept of the hand-rearing and development of the Lear's Macaw. During the nestling period its behaviour was similar to that of other macaw chicks, with a strong head bobbing feeding response and it responded to intimidating situations by turning onto its back, although in the case of this individual this was observed to a lesser degree than is typical of some other species. DNA-sexing revealed that it is a female. Its development was not unlike that of a young Hyacinth Macaw, however, it



Photo © AWWP

Lear's Macaw chick between feeds with half full crop at 7 days.



Photo © AWWP

Lear's Macaw chick at 18 days.



Photo © AWWP

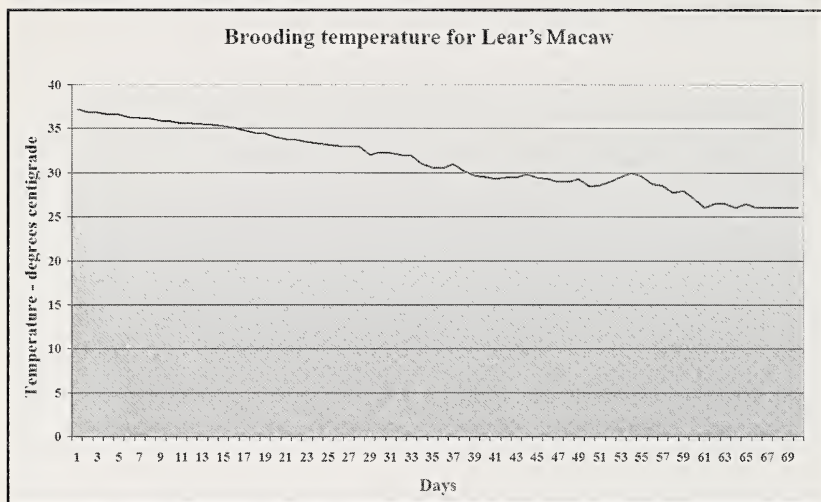
Lear's Macaw chick at 22 days.



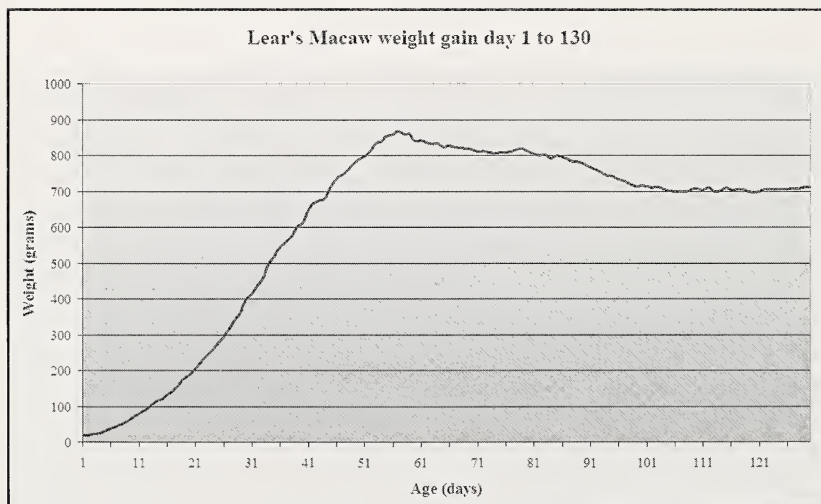
Photo © AWWP

Lear's Macaw chick at 39 days.

Temperature settings during brooding.



Growth curve.



matured significantly faster in almost all aspects of its physical development. When newly hatched the chick was pale pink and covered in pale blonde down on the head, neck, back and flanks. The eyes were closed and did not start to open until day 17 and were not fully open until day 21. Our records show that the first pin-feathers started to break through the skin on the back on day 14. Those of the breast, wings and tail first started to break out of their sheaves on day 23. The naked skin around the eyes and bill was initially very pale and first started to turn yellowish at 50 days. Vigorous

wing-flapping was practised regularly from day 46, but the chick did not make its first short flight until it was 85 days old. Several times during the rearing period the chick was observed eating its own faeces and this behaviour was regularly observed between days 28-70, despite the fact that the chick's container was cleaned several times a day. Similar behaviour was observed in young Hyacinth Macaws hand-reared at AWWP.

Conclusion

Breeding Lear's Macaw at Al Wabra Wildlife Preservation was not only a rewarding experience for us but hopefully has also produced a range of information that will benefit the entire breeding programme of IBAMA, and lead to more successful breeding in the near future and the creation of a safe population in human care, that will help increase our understanding and appreciation of this unique and fascinating parrot. We also hope that as the parents become more experienced, we will very soon be able to announce that they have successfully raised their own young, and will continue to do so.

In the best case scenario, the future of the Lear's Macaw population in the wild will be secured over the next few decades. However, if the worse happens and the wild population declines to a critical level, a healthy captive population may just be the last chance for the species.

Acknowledgements

Our thanks go to HE Sheikh Saoud Bin Mohammad Bin Ali Al-Thani, the owner of Al Wabra Wildlife Preservation, for making possible the conservation and scientific work with Lear's Macaw.

Recommended reading

- Del Hoyo, J., Elliot, A. and Sargatal, J. (eds.). 1977. *Handbook of the Birds of the World*. Vol.4. Lynx Edicions, Barcelona.
- Hammer, C. and Hammer, S. 2002. Al Wabra Wildlife Preservation – an Introduction. *International Zoo News*, Vol.49, No.8, pp.482-486.
- IBAMA. 2006. Management plan for Lear's Macaw (*Anodorhynchus leari*). *Endangered Species Series No.4*. Brazilian Institute of Environment and Renewable Natural Resources, Fauna Species Protection Coordination. Brasilia.
- Watson, R., Jensen, S. B. and Hammer, S. 2006. Breeding and Hand-rearing the Hyacinth Macaw at Al Wabra Wildlife Preservation. *Australian Bird Keeper* Vol.19, Issue 6, pp.366-369, Dec. (2006).

You can learn more about Al Wabra Wildlife Preservation, owned by HE Sheikh Saoud Bin Mohammad Bin Ali Al-Thani, by visiting its website: www.alwabra.com/awwp. Since the above article was written, Simon Bruslund Jensen has returned to Germany to take up the position of Senior Curator at Walsrode Birdpark. E-mail: simon.jensen@vogelpark-walsrode.de



Photo © AWWP

Lear's Macaw chick stretching in the weighing box at 50 days.

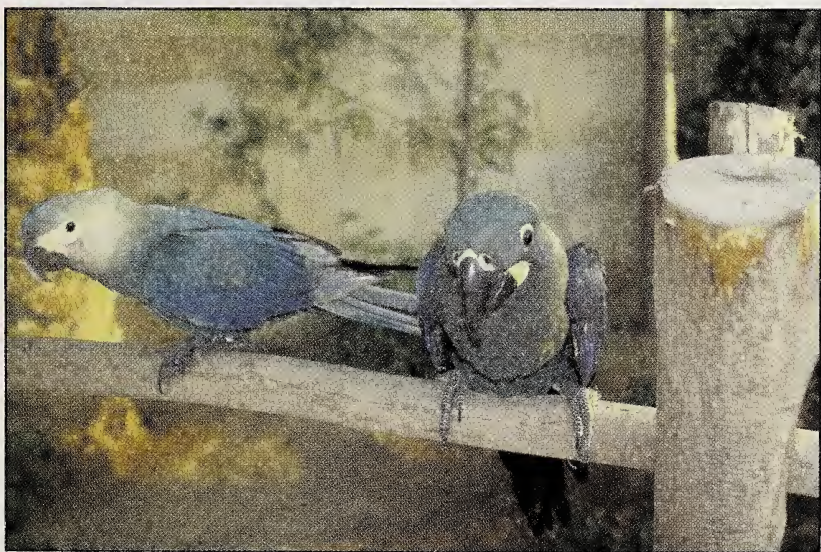


Photo © AWWP

Lear's Macaw chick at 81 days.

*Photo © AWWP*

Lear's Macaw chick at 88 days.

*Photo © AWWP*

Lear's Macaw chick at 88 days, together with a young Spix's Macaw, in the outside aviary.

Postscript

Ryan Watson, Blue Macaw Coordinator at AWWP, announced recently that three further Lear's Macaw chicks were being hand-reared at Al Wabra Wildlife Preservation, Qatar. The breeding pair has not yet developed sound incubation skills and several eggs were damaged beyond repair, before staff were able to rescue three eggs and hatch them in an incubator.

Al Wabra Wildlife Preservation (AWWP), PO. Box 44069 Doha, State of Qatar.

* * *

PROBLEMS WITH GEESE

It is not pigeons which are a problem at the World of Birds, Hout Bay, South Africa, but Egyptian Geese *Alopochen aegyptiacus*. While the sanctuary would be happy to feed three or four pairs, having 200 turn up expecting to be fed is another matter, wrote Director Walter Mangold in the September/October 2006 *Newsletter* No.284, p.9. It seems that Egyptian Geese are now found in gardens all over Cape Town and, being both successful and very aggressive when breeding, and fearing neither cats or dogs, they are multiplying at an unsustainable rate. Every suitable garden with a pool, every patch of vacant land, and all school and sports fields, have been invaded by these geese. On the plus side, he admires the loyalty the male and female show to each other and the way pairs fearlessly defend their families. Whether there are "five or 12" goslings, they follow the female in unison, there is no bickering amongst the siblings and the families remain together until the goslings learn to fly and become independent.

NOTES ON A VISIT TO PAPUA NEW GUINEA

by Ray Piper

At last year's President's Garden Party, whilst admiring Raymond and Ruth's wonderful collection, I recounted to Graham Thurlow details of an enjoyable holiday I had spent the previous year in Costa Rica, searching for Quetzals *Pharomachrus mocinno* and other exotic birds.

Graham told me he was planning a trip to Papua New Guinea hoping to see, amongst other beautiful birds, the elusive birds of paradise. Images of David Attenborough flashed before me, and I did not take much persuading to accompany him. My long suffering wife having again agreed to look after all my birds whilst I was away, reservations were duly made.

I did as much research as I could on Papua New Guinea (PNG), described as "the last undiscovered paradise", and eagerly looked forward to the adventure. We flew to Port Moresby the capital of Papua New Guinea, via Singapore. I had hoped to have enough time to visit Jurong BirdPark, but this was not to be (perhaps it will be a destination for another trip one day!).

Despite my research, I was not really prepared for the culture shock I experienced during our travels in Papua New Guinea. It is a vast and beautiful country of endless tropical jungle, where travel is mostly by air or river. Some of the isolated settlements have little or no contact with other areas of the country and in places the civilisation is very primitive. It was apparent that some of the people had not seen Europeans before. Despite at first feeling a little apprehensive, we found the people exceedingly friendly and welcoming to us, and anxious to show us the bird life.

We travelled with a well-known English ornithologist, assisted by local guides at the various locations we visited.

One of our visits, soon after arriving, was to a national park where we were rewarded with good views of Pied Herons *Egretta picata*, various cuckoo-shrikes *Coracina* spp., Blue-winged Kookaburras *Dacelo leachii* and other smaller brightly coloured kingfishers. At dawn the next morning we were treated to our first sighting of one of the 42 species of the family Paradisaeidae. This was a beautiful male Raggiana Bird of Paradise *Paradisaea raggiana* which was displaying high in a tree and was a truly amazing sight, as in a frenzy of activity, it dropped its wings and showed off its fantastic flank plumes, which were orangish (or even reddish), but with the sun behind them looked yellowish to me. We were to see more of these birds at other locations and each sighting seemed more spectacular than the last.

I was not fully prepared for the gruelling mountain walks in such humidity and although before I left the UK I had been warned about blood-



The author with local tribesmen.



Female Brown Sicklebill Bird of Paradise.

Ray Piper



Male Ribbon-tailed Astrapia.

Ray Piper



Male King of Saxony Bird of Paradise.

Ray Piper

sucking leeches, flesh-burrowing chiggers and malarial mosquitoes, I had not realised how all these creatures would be so attracted to me (for some reason they seemed to find Graham less attractive!). Also, when it rains in Papua New Guinea, as it did everyday, it really rains. Nevertheless, despite all the privations, the bird life was almost unbelievable, with many endemic species found nowhere else in the world.

We were there for two weeks, sleeping sometimes in wooden huts described as “basic”. They were indeed very basic, but it added to the atmosphere. We were up before daybreak each day to catch the dawn chorus, and this was also the best time to see birds of paradise displaying.

We were fortunate to see several species of birds of paradise, including the King *Cicinnurus regius*, Twelve-wired *Seleucidis melanoleuca*, Blue *P. rudolphi*, Crested *Cnemophilus macgregorii*, Superb *Lophorina superba*, Lesser *P. minor*, Brown Sickbill *Epimachus meyeri*, Ribbon-tailed *Astrapia astrapia mayeri* and King of Saxony *Pteridophora alberti*.

At one of the mountain lodges, staff put out fruit on a huge bird table, which gave us fantastic views of some of these birds from only a short distance away. We saw the uncommon Mountain Firetail *Oreostruthus fuliginosus* there, which as a breeder of Australian finches, was very exciting for me. I recall reading a book on Australian finches that stated: “There is another species of firetail which you are unlikely to see as it only appears in remote mountain forests in Papua New Guinea.” We also saw Blue-faced Parrot Finches *Erythrura trichroa* in their native habitat. At the time, back home in my birdroom, I had young of this species. Unfortunately I did not see the Papuan Parrot Finch *E. papuana*, although some of our party did.

We frequently saw parrots, including large flocks of Sulphur-crested Cockatoos *Cacatua galerita* (including one of 20 plus), Eclectus Parrots *Eclectus roratus*, Palm Cockatoos *Probosciger aterrimus*, Rainbow *Trichoglossus haematodus*, Goldie’s *T. goldiei*, Plum-faced or Whiskered *Oreopsittacus arfaki*, Stella’s *Charmosyna papou* and Red-flanked Lorikeets *C. placensis*. Tiger-Parrots *Psittacella* spp., Red-breasted Pygmy Parrots *Micropsitta bruijnii*, fig parrots and Fairy Lorikeets *C. pulchella* were also seen, some quite close and others through binoculars. We also saw a number of Green-winged King Parrots *Alisterus chloropterus*, a species which I have a pair of in my collection.

Blyth’s Hornbills *Rhyticeros* or *Aceros plicatus* were seen, Southern or Scheepmaker’s Crowned Pigeons *Goura scheepmakeri*, numerous brightly coloured fruit doves *Ptilinopus* spp., beautiful Emperor Fairy Wrens *Mahurus cyanocephalus* and Chestnut-backed Jewel-Babblers *Ptilorhoa castanonota*. On the forest floor we saw Red-bellied Pittas *Pitta erythrogaster*, Hooded Pittas *P. sordida*, Brown Quail *Synoicus ypsilophorus* and on one momentous trek we almost stepped on a nesting nightjar *Caprimulus* sp., sitting beside

the trail. Its camouflage was so good that only our beady-eyed guide spotted it. We all walked within 2ft (60cm) of it, without it flying off and without us seeing it. We were shown Sooty Owls *Tyto tenebricosa* and Mountain Owlet-Nightjars *Aegotheles albertisi* nesting in holes in trees. We also saw a Papuan Frogmouth *Podargus papuensis*, its camouflage so brilliant that it could easily have been mistaken for part of a branch of a tree.

Early one morning we came upon some local trappers who had captured a beautiful male King of Saxony Bird of Paradise, which they had tied to a branch. After some negotiation, we managed to buy the bird from them for about £10 (US\$20) and released it back into the forest. This left them quite bewildered and we shall never know whether or not they captured it again, but we felt better for having released this bird back into its habitat.

Towards the end of our stay, we were high in the mountains when our local guide became very excited. He had heard the call of the New Guinea Harpy Eagle *Harpyopsis novaeguineae*. We were fortunate to observe through telescopes, a pair of these magnificent birds of prey high in the trees. This was the “jewel in the crown” for me. Altogether we saw 311 species.

All too soon our visit came to an end and it was time to return home, again via Singapore. Though not before a delay of 24 hours, when our aircraft broke down on an isolated jungle airstrip.

If any members get the opportunity to visit the amazing country of Papua New Guinea and are ready for an adventure beyond anything they can imagine, I would urge them to go for it. If not, then I would suggest that they watch Sir David Attenborough’s DVDs filmed in New Guinea, and dream.

Ray Piper is a UK member who lives in Hampshire.

* * *

AVICULTURAL MAGAZINE BACK ISSUES

The society has a large stock of back issues mostly from 1935 onwards but there are also some earlier issues still available. They are priced £3.00 each (including p&p). Please check availability before placing an order. Overseas members may be able to pay by credit card through a PayPal invoice, but this service is not available in all countries. All enquiries should be addressed to: Paul Boulden, Hon. Secretary/Treasurer, Avicultural Society, Arcadia, The Mounts, East Allington, Totnes, Devon TQ9 7JQ, UK or E-mail: admin@avisoc.co.uk

**SEARCHES FOR THE BLUE-CROWNED
LAUGHINGTHRUSH**
Garrulax courtoisi simaoensis
IN SOUTH YUNNAN, SOUTH-WEST CHINA

by He Fen-qi, Lin Jian-sheng, Laura Gardner, Mary Richardson
and Roger Wilkinson

Background

The history of the discovery of the Yellow-throated Laughingthrush began with a British topographical surveyor, Colonel Godwin-Austen, who described a new species of laughingthrush, *Garrulax galbanus*, based on skins he obtained in February 1873 in the Muniur Valley, eastern Assam, India (Godwin-Austen, 1874a, 1874b). Later on, in 1923, M. A. Ménégaux, the President of the Société Ornithologique de France, recognised another species of laughingthrush, *G. courtoisi* (Ménégaux, 1923). This was based on two skins that had been collected in September 1919 from Wuyuan in south-east China by a French missionary Père A. Rivière and sent to Ménégaux by Père F. Courtois. The distance from Muniur to Wuyuan is at least 2,000km (approx. 1,250 miles), and no record of either of the two laughingthrushes had been reported at any site between these two localities at that time. *G. courtoisi* was nevertheless soon afterwards relegated to the status of a subspecies of *G. galbanus*, i.e. *G. galbanus courtoisi* (La Touche, 1923).

In early 1956, the Chinese Academy of Sciences organised a survey to Xishuangbanna, a tropic rainforest area located in far south Yunnan, near the border with Myanmar (Burma). On March 6th that year, Mr Tang Rui-chang, a zoologist from Wuhan University in central China, collected three birds, one male and two females at a locality called Shitoushan. The skins collected there were later identified as *G. galbanus courtoisi*, the same subspecies of the Yellow-throated Laughingthrush found in Wuyuan (Cheng Tso-hsin, 1958). It was only much later on in 1982, after checking the skins of *courtoisi* in the collection of the French National Museum of Natural History in Paris, that Cheng and Tang (1982) described the birds collected at Simao as a new subspecies, named at that time as *Garrulax galbanus simaoensis*. Hence, there were then three subspecies - *G. g. galbanus*, *G. g. courtoisi* and *G. g. simaoensis* (Cheng et al. 1987). Recently it has been proposed that the Chinese forms be considered again as a full species, named the Blue-crowned Laughingthrush *G. courtoisi* (to include *courtoisi* and *simaoensis*), leaving the Yellow-throated Laughingthrush *G. galbanus* as a monotypic species (Collar, 2006).

Recent discoveries

Since the type specimen of *G. c. simaoensis* was first collected in 1956, several field surveys and birdwatching excursions have been undertaken in Simao and Xishuangbanna. However, no further individuals of this subspecies were recorded from this region during these surveys (Cheng & Cheng, 1960; Hu & Han, 2002; King & Han, 1991; Lei & Zheng, 2004; Wang, 1991; Wilkinson et al. 2004; Иванов, 1959, 1961).

G. c. courtoisi had similarly eluded scientific records until 2000, when breeding populations were found at its type locality in Wuyuan. After this the priority of our survey work began to focus on the rediscovery of *G. c. simaoensis*. Thus, in 2002 the search began in Yunnan for Shitoushan near Simao, known to be the type locality of *G. c. simaoensis*.

In early April 2002, He Fen-qi and Hong Yuan-hua made a first visit to Simao. In Chinese, Shitoushan means stone-hill or stone-hills. When looking at a map, they found a bus stop called Shitoushan 16km (approx. 10 miles) south-west of Simao. On visiting the area they found it to be a small basin surrounded by low hills and almost totally denuded of trees. Upon further investigation it was realised that access to this site during the 1950s would probably have been extremely limited and the expedition could not have taken place in one day, with the mission having been situated 150km (approx. 95 miles) south of Simao. Therefore, this seemed unlikely to be the



Forested hillside at Shitoushan.

Shitoushan where the birds had been collected originally. During that visit to Yunnan, two days were spent in Caiyanghe Nature Reserve located 40km (approx. 25 miles) south of Simao, in the hope of searching the surrounding area. As there is some bird trade in the area, bird markets were visited and local dealers and bird keepers were asked if they recognised the bird. Unfortunately, none of these proved successful.

A second search for *simaoensis* was made in early May 2004, at which time He Fen-qi and Laura Gardner discovered a second site called Shitoushan, near Simao Airport. This second locality of that name (roughly 22°47N & 100°57E) seemed to be a much more likely candidate for the type locality of *simaoensis*, in being far closer to Simao and with much better access. The hill itself covers less than 1sq km (0.386sq miles) with an elevation of about 1,340m-1,430m (approx. 4,400ft-4,700ft). Much development has occurred in the area since 1956 when the skins were collected. The old town of Simao was located at the north-east corner of the current city, and covered a total area of less than a fifth of the current city. The airport was not built until 1958, the development of which reaches right to the foot of Shitoushan. Far from being detrimental to the vegetation in the area, the presence of the airport has in fact been beneficial in that it has prevented the destruction of the large mature trees. The vegetation on the hills surrounding Simao consists mostly of young secondary evergreen and deciduous forests, mixed with plantations, predominantly of Simao Pine *Pinus kesiya* var. *langbianensis*. The large mature trees that still exist at Shitoushan, can be found at few other places in the region. There were though no sightings of *simaoensis*. During the May 2004 visit to Simao, an elderly bird hunter was interviewed, who lived just outside the newly located Shitoushan. He recognised the Blue-crowned Laughingthrush pictured in the field guide, but said he had last seen it 20 years previously, some distance south of Simao. The site was visited the following morning and although some tall trees remained there was no sign of the birds. A little further down along the roadside, land clearance was going ahead as part of the building of the new Simao Highway (Wilkinson et al. 2004).

In early March 2005, He Fen-qi, Lin Jian-sheng and Apache Lau, spent a week in and around Simao, mostly at the second Shitoushan. Whilst surveying the hill one morning, a small group of birds was observed in dense bushes. The sound and appearance of these birds were very similar to those of *G. c. courtoisi* in Wuyuan. It was therefore assumed that these could have been the elusive *simaoensis*. In an attempt to confirm this brief sighting, another visit was made in May 2005. On that occasion, He Fen-qi, Lin Jian-sheng, Apache Lau, Mary Richardson, Roger Wilkinson and Simon Dowell visited Shitoushan and the surrounding area. However, despite searching and playing recordings of the calls of *courtoisi* made in Wuyuan,

simaoensis was not seen or heard and the sighting made earlier in the year could not be confirmed.

The most recent visit took place in mid-August 2006, thanks to generous financial support from the Avicultural Society. He Fen-qi travelled to the area alone and spent a week at Shitoushan, during which time he surveyed some of the areas of north and north-west Simao. Once again, despite intense effort, no evidence could be found of the presence there of this elusive laughingthrush. A list of other bird species recorded in the course of four visits to Shitoushan is included in an Appendix.

Future aims

G. c. simaoensis remains enigmatic and from the timing of observations, it may be asked whether the laughingthrushes collected at Shitoushan were wintering in the area or passing through, rather than breeding there. We know that *G. c. courtoisi* in Wuyuan appear at their breeding sites between early to mid-April and leave there in July and August, but are uncertain as to where they spend the remainder of the year (Wilkinson et al. 2004). This may suggest that future surveys for breeding *simaoensis* should be outside this area and further surveys at Shitoushan should be planned for the first week of March, or even earlier in the year, in case they might winter there. Some leaflets have been produced with photos and illustrations of captive Blue-crowned Laughingthrushes and these have been distributed to people in areas of Yunnan, with the request that anyone who recognises this bird or knows anything about it, should contact Prof. He Fen-qi.

Literature cited

- Berlioz, J. 1930. Revision systématique du genre *Garrulax* Lesson. *L'Oiseau* 11:1-27, 78-105, 129-159.
- Cheng Tso-hsin. 1958. New records of Chinese birds from southern Yunnan. *Scientia* 4:111-112.
- Cheng Tso-hsin, Cheng Pao-lai. 1960. A study of birds in southern Yunnan II. *Acta Zool. Sinica* 12 (2):250-277.
- Cheng Tso-hsin, Long Ze-yu, Zheng Bao-ai. 1987. Passeriformes, Muscicapidae II. Timaliinae. *Fauna Sinica* Vol.11:102-104.
- Cheng Tso-hsin (Zheng Zuo-xin) and Tang Rui-chang. 1982. A new subspecies of *Garrulax galbanus* from Yunnan, China – *Garrulax galbanus simaoensis*. *Sinozoologica* 2:1-2.
- Collar, N. J. 2006. A partial revision of the Asian babblers (Timaliidae). *Forktail* 22:85-112.
- Godwin-Austen, H. H. 1874a. Descriptions of ten new birds from the Nágá Hills and Munipúr Valley, N. E. Frontier of Bengal. *Proc. Zool. Soc. London* 44:43-48 & pl.10.
- Godwin-Austen, H. H. 1874b. Fourth list of birds, principally from the Naga Hills and Munipur including others from the Khasi, Garo and Tipperah Hills. *J. Asiatic Soc. Bengal* 43 (2):151-180.
- Hu Jiang, Han Lian-xian. 2002. Diversity of birds of Caiyanghe Nature Reserve and strategies for protection and management. *Forestry Inventory and Planning* 27 (2):76-81.
- King, B. and Han Lian-xian. 1991. Field notes on birds recorded from the Simao area in south central Yunnan Province, China. *Hong Kong Bird Report* 1990:172-178.

- La Touche, J. D. D. 1923. *A handbook of the birds of Eastern China*. Part 1. Taylor and Francis, London.
- Lei Gui-lin, Zheng Zhong. 2004. Study on birds Caiyanghe National Nature Reserve, Simao. *J. NE Forestry Univ.* 32 (6): 124-125, 129.
- Ménégaux, M. A. 1923. Description du *GARRULAX COURTOISI* nov. sp. de la Chine. *Rev. Franc. Orn.* 8 (169):98.
- Wang Zhi-jun. 1991. The structure of the bird community in Xishuangbanna forest. *Zool. Research* 12 (2): 169-174.
- Wilkinson, R., He Fen-qi, Gardner, L. and Wirth, R. 2004. A Highly Threatened Bird - Chinese Yellow-throated Laughing Thrushes in China and in Zoos. *International Zoo News* 51/8:456-469.
- Иванов, А. И., 1959. A survey report on the birds of Xishuangbanna, Yunnan Province, and its suburban districts I. *Acta Zool. Sinica* 11 (2):170-210.
- Иванов, А. И., 1961. A survey report on the birds of Xishuangbanna, Yunnan Province, and its suburban districts II. *Acta Zool. Sinica* 13 (1-4):70-96.

Dr Roger Wilkinson is Head of Conservation and Science at Chester Zoo, Upton-by-Chester, Chester CH2 1LH, UK. E-mail: R.Wilkinson@chesterzoo.org.

Laura Gardner is Curator of Leeds Castle aviaries, Leeds Castle, Maidstone, Kent ME1 7PL, UK. E-mail: lauragardner@leeds-castle.co.uk

Appendix

Birds recorded at Shitoushan

	May 03-10 2004	March 02-07 2005	May 01-08 2005	August 12-21 2006
Great Barbet <i>Megalaima virens</i>	+			
White-throated Kingfisher <i>Halcyon smyrnensis</i>				+
Common Kingfisher <i>Alcedo atthis</i>	+		+	+
Common Hoopoe <i>Upupa epops</i>	+			
Large Hawk Cuckoo <i>Hierococcyx sparveroides</i>		+	+	
Green-billed Malkoha <i>Phaenicophaeus tristis</i>	+	+	+	+
Geater Coucal <i>Centropus sinensis</i>	+	+	+	+
House Swift <i>Apus nipalensis</i>	+	+	+	+
Black-shouldered Kite <i>Elanus caeruleus</i>		+		
Crested Serpent Eagle <i>Spilornis cheela</i>		+		
Crested Goshawk <i>Accipiter trivirgatus</i>			+	
Common Buzzard <i>Buteo buteo</i>	+			
Common Kestrel <i>Falco tinnunculus</i>	+	+	+	
Little Egret <i>Egretta garzetta</i>	+	+		
Amur Falcon <i>Falco amurensis</i>		+		

	May 03-10 2004	March 02-07 2005	May 01-08 2005	August 12-21 2006
Chinese Pond Heron <i>Ardeola bacchus</i>	+	+		
Cinnamon Bittern <i>Ixobrychus cinnamomeus</i>	+		+	+
Asian Fairy Bluebird <i>Irena puella</i>	+			
Tiger Shrike <i>Lanius tigrinus</i>		+		
Brown Shrike <i>Lanius cristatus</i>		+		
Long-tailed Shrike <i>Lanius schach</i>	+	+	+	+
Grey-backed Shrike <i>Lanius tephronotus</i>			+	
Red-billed Blue Magpie <i>Urocissa erythrorhyncha</i>	+	+	+	+
Short-billed Minivet <i>Pericrocotus brevirostris</i>		+	+	+
White-throated Fantail <i>Rhipidura albicollis</i>		+		
Black Drongo <i>Dicrurus macrocercus</i>	+	+	+	
Ashy Drongo <i>Dicrurus leucophaeus</i>	+	+	+	+
Spangled Drongo <i>Dicrurus hottentottus</i>		+		
Asian Paradise-flycatcher <i>Terpsiphone paradisi</i>		+		
Great Iora <i>Aegithina lafresnayei</i>	+			
Comon Iora <i>Aegithina tiphia</i>		+		
Scaly Thrush <i>Zoothera dauma</i>	+			
Pale Blue Flycatcher <i>Cyornis unicolor</i>		+		
Siberian Rubythroat <i>Luscinia calliope</i>		+		
Oriental Magpie Robin <i>Copsychus saularis</i>	+	+	+	+
Common Stonechat <i>Saxicola torquata</i>	+	+	+	
Pied Bushchat <i>Saxicola caprata</i>	+			
Grey Bushchat <i>Saxicola ferrea</i>	+			
Black-throated Tit <i>Aegithalos concinnus</i>	+	+	+	+
Barn Swallow <i>Hirundo rustica</i>	+	+	+	+
Black-crested Bulbul <i>Pycnonotus melanicterus</i>	+	+	+	+
Red-whiskered Bulbul <i>Pycnonotus jocosus</i>	+	+	+	+
Brown-breasted Bulbul <i>Pycnonotus xanthorrhous</i>		+	+	+
Red-vented Bulbul <i>Pycnonotus cafer</i>	+	+	+	+
Sooty-headed Bulbul <i>Pycnonotus aurigaster</i>			+	+
Mountain Bulbul <i>Hypsipetes maclellandii</i>			+	
Grey-breasted Prinia <i>Prinia hodgsonii</i>		+	+	+
Plain Prinia <i>Prinia inornata</i>	+	+	+	+
Japanese White-eye <i>Zosterops aponicus</i>	+	+	+	+
Brownish-flanked Bush Warbler <i>Cettia fortipes</i>			+	
Dusky Warbler <i>Phylloscopus fuscatus</i>	+	+	+	
Yellow-browed Warbler <i>Phylloscopus inornatus</i>		+		

	May 03-10 2004	March 02-07 2005	May 01-08 2005	August 12-21 2006
(Blue-crowned Laughingthrush <i>Garrulax courtoisi</i> ?)			?	
Puff-throated Babbler <i>Pellorneum ruficeps</i>	+	+		
Rufous-capped Babbler <i>Stachyris ruficeps</i>		+		
Grey-cheeked Fulvetta <i>Alcippe morrisonia</i>		+		
Long-tailed Sibia <i>Heterophasia picaoides</i>		+		
(Purple Sunbird <i>Nectarinia asiatica</i> ?)	?			
Black-throated Sunbird <i>Aethopyga saturata</i>			+	
Crimson Sunbird <i>Aethopyga siparaja</i>		+	+	
Forest Wagtail <i>Dendronanthus indicus</i>	+			
White Wagtail <i>Motacilla alba</i>	+	+	+	
White-rumped Munia <i>Lonchura striata</i>	+	+	+	+
Scaly-breasted Munia <i>Lonchura punctulata</i>		+	+	+
Black-headed Munia <i>Lonchura malacca</i>				+

* * *

GODWIN-AUSTEN'S LAUGHINGTHRUSH

Lieutenant-Colonel Henry Haversham Godwin-Austen (1834-1923), who collected the first Yellow-throated Laughingthrush *Garrulax galbanus*, amassed a collection of 3,582 bird skins, mainly from the Naga and Khasia Hills, Manipur and the country bordering Assam, but after retiring to England got into financial difficulties and was obliged to sell his collection to the British Museum (Natural History), according to Barbara and Richard Mearns in their book *The Bird Collectors* (Academic Press, 1998). It has a photograph of him on p.167. In some old atlases the Himalayan peak K2 was shown as Mount Godwin-Austen, Godwin-Austen having been the first topographical surveyor to see the mountain at close range and fix its position and height.

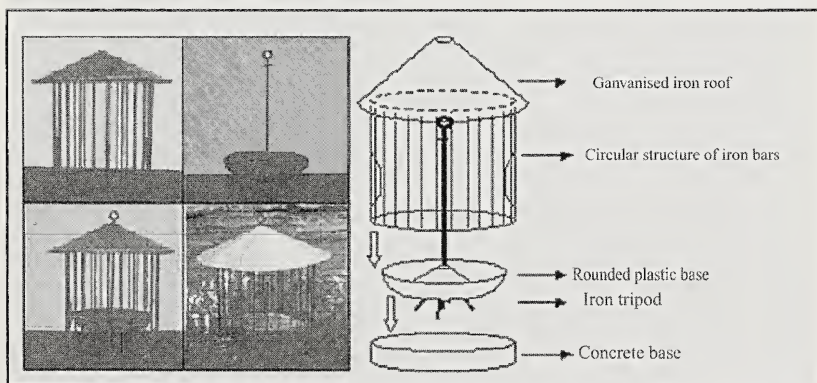
DETECTING SINANTROPIC ANIMALS: TWO BIRD FEEDERS FOR THIS PURPOSE DEVELOPED AT BELO HORIZONTE ZOO

by João Bôsko Ferraz, Cristiano Schetini de Azevedo
and Ângela Bernadete Faggioli

Introduction

Sinanthropic animals are considered to be those that live in and around human environments and can transmit diseases to humans (Anvisa, 2003). Sinanthropic animals achieve rapid population growth in areas where they can find food easily, along with places to nest and shelter, and where there is a lack of natural predators (Ribeiro et al., 2000; Oro et al., 2004). Diseases such as salmonellosis, histoplasmosis, cryptococcosis and chagas can easily be transmitted from sinanthropic animals to humans and domestic animals (Ritchie et al., 1994; Nunes, 2003).

Zoos and other institutions and collections that maintain animals in open exhibits suffer invasions of sinanthropic animals, such as pigeons, rats and mice. These can cause serious economic losses to zoos and other institutions and collections, once they start to eat large quantities of food, and can transmit diseases (Wall, 1990; Nunes, 2003).



A new feeder developed by staff of the Bird Section of Belo Horizonte Zoo for Anseriformes and Phoenicopteriformes birds. It was developed to deter sinanthropic animals, mainly pigeons.

In an attempt to deter sinanthropic animals from reaching the food of birds in open exhibits on the Bird Section at Belo Horizonte Zoo (Belo Horizonte is the capital of the state of Minas Gerais, south-eastern Brazil), two new feeding devices have been created, one for ducks and geese (Anseriformes) and flamingos (Phoenicopteriformes), and another for ibises (Ciconiiformes/Theskiornithidae). Both of these feeding devices are cheap to make, easy to install and clean, and are portable.

Waterfowl and flamingo feeder

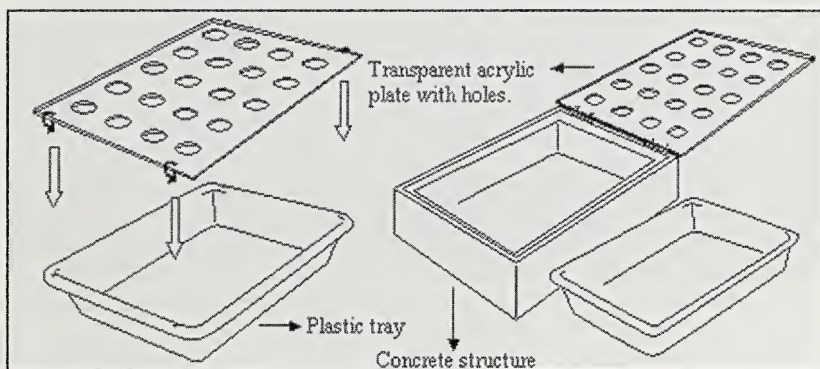
This consists of a circular plastic feeding bowl 40cm (approx. 1ft 4in) in diameter, over the top of which fits a 50cm (approx. 1ft 8in) high metal cage, with vertical bars spaced 5cm (2in) apart. A galvanised metal roof 66cm (approx. 2ft 2in) in diameter and shaped like a 'Chinese hat', is welded to the top of the cage. The circular plastic feeding bowl rests on 10cm (4in) high metal legs, which lift the bowl above the water to avoid the food becoming soaked with water. The legs are on the end of a metal rod or pole, which passes through a hole in the base of the feeding bowl and another in the centre of the roof. At the other end (the top) of the metal rod or pole is a metal ring, which is used to fasten the feeder. The feeder is placed in a previously constructed concrete base 10cm (4in) below the surface of the water. A pole is used to place the feeder on the concrete base. This takes less than five minutes to do.



The installation of the new Anseriformes/Phoenicopteriformes feeder built by staff of the Bird Section of Belo Horizonte Zoo to avoid sinantropic animals, mainly pigeons.

Ibis feeder

This consists of a white plastic feeding tray 30cm long x 22cm wide x 8cm deep (approx. 1ft long x 9in wide x 3in deep), covered by a 5mm (1/4in) thick transparent acrylic sheet or top, in which 20 holes each 25mm (1in) in diameter have been drilled. The acrylic sheet or top is hinged to a concrete base, which the plastic feeding tray fits into. This feeder takes less than three minutes to install and prevents pigeons from reaching the food in the tray. Only ibises, with their long beaks, can reach the food.



A new feeder developed by staff of the Bird Section of Belo Horizonte Zoo for Ciconiiformes/Threskiornithidae birds. This device was built to deter sinantropic animals, mainly pigeons.

Results

Both feeders have proved very effective at deterring sinantropic animals, especially pigeons. Since the new feeders were installed in the exhibits, the number of pigeons has decreased drastically leading to an improvement in the welfare of the animals in these exhibits. The Bird Section staff are now working on the development of feeders made from natural materials (e.g. bamboo, bark, logs, etc.) or that imitate natural materials, with objective of making them look less conspicuous (more aesthetically pleasing). The feeder designs are at present in the process of being patented in accordance with Brazilian law.

Acknowledgements

We would like to thank Humberto E. S. Mello for the drawings of the feeders. We also wish to thank staff on the Bird and Maintenance Sections at Belo Horizonte Zoo for help in the construction and evaluation of the feeders, and Volder Soares Silva and Robert John Young for their suggestions regarding the manuscript. Our thanks also go to Carlyle Mendes Coelho, Director of Belo Horizonte Zoo, for his help and encouragement during the development of these new bird feeders.



The installation of the new Ciconiiformes/Threskiornithidae feeder built by staff of the Bird Section of Belo Horizonte Zoo.

References

- Anvisa. 2003. Resolution RDC No.2. Sanitary inspection and control in airports and aircraft. *National Surveillance Agency*. Accessed 07/12/2006 online at: www.anvisa.gov.br
- Nunes, V. F. P. 2003. Pombos: o desafio de controle. *Biológico* 65 (1/2):89-92.
- Oro, D., Cam, E., Pradel, R. and Martínez-Abraín, A. 2004. Influence of food availability on demography and local population dynamics in a long-lived seabird. *Proceedings of the Royal Society of London B* 271 (1537):387-396.
- Ribeiro, P.B., Carvalho, C. J. B., Pinto, L. and Silveira Jr, P. 2000. Flutuação populacional das espécies de *Ophyra* Robineau-Desvoidy (Diptera, Muscidae, Azeliinae), em Pelotas, R. S. *Arquivos do Instituto de Biologia* 67 (2):205-214.
- Ritchie, B. W., Harrison, G. J. and Harrison, L. R. 1994. *Avian Medicine: principles and application*. Winger Publishing Inc., Florida.
- Wall, S. B. V. 1990. *Food Hoarding in Animals*. The University of Chicago Press, Chicago.

João Bôsko Ferraz and Ângela Bernadete Faggioli, Fundação Zoo-Botânica de Belo Horizonte, Av. Otacílio Negrão de Lima, 8000 Pampulha, 31365-450 Belo Horizonte, Minas Gerais, Brazil. E-mail: johnbferraz@yahoo.com.br & faggioli@pbh.gov.br

Corresponding author: Cristiano Schetini de Azevedo, Conservation, Ecology and Animal Behaviour Group, Mestrado em Zoologia de Vertebrados, Prédio 41, Pontifícia Universidade Católica de Minas Gerais, Av. Dom José Gaspar, 500 Coração Eucarístico, 30535-610 Belo Horizonte, Minas Gerais, Brazil. E-mail: cristianoroxette@yahoo.com

BOOK REVIEWS

DEFINITIVE GUIDE TO BIRDS OF NORTHERN SOUTH AMERICA

Birds of Northern South America is a superlative work (in two volumes) by Avicultural Society Vice President Robin Restall, along with Clemencia Rodner and Miguel Lentino, colleagues at the Phelps Ornithological Collection in Caracas, Venezuela, where Robin has been a Research Associate since 1996. Despite attempts to keep it as concise as possible, the amount of material necessitated it requiring two volumes: the first (880 pages) covers the species accounts and the second (656 pages) contains the plates and maps. The geographical area covered includes continental Ecuador, Colombia, Venezuela and its offshore islands, Aruba, Curaçao and Bonaire, plus Trinidad and Tobago, Guyana, Suriname and French Guiana.

Volume 1 includes chapters on climate, vegetation and habitats, migration and conservation. The real meat of Volume 1 though is the species chapters, some of which include superb black and white illustrations. The species accounts are broken down under six subheadings: identification, subspecies, habits, status, habitat and voice. Beside each species' scientific name is the plate number. To see this, you have to turn to Volume 2 to find the species illustrated in colour.

Robin dedicated 10 years to preparing the illustrations and has, where necessary, painstakingly illustrated each species in adult male and female plumages, those of the subspecies and even the plumages of the morphs, first- and second-year birds, intermediates, immature males and females, and juveniles. As an example, on Plate 27, the Grey-headed Kite *Leptodon cayanensis* is depicted in adult, immature light phase, intermediate and dark phase plumages. The grey morph of the Hook-billed Kite *Chondrohierax uncinatus* is shown, along with the female plumage, the dark morph and the immature male and female plumages. Plate 277 shows the Ruddy-breasted Seedeater *Sporophila minuta*, male brown type, male grey type, first-year male, immature male, adult female and juvenile. This is a groundbreaking achievement and sets an exacting standard for other works to follow.

Many of the birds are depicted in typical field guide fashion, i.e. side-on. In the case of others, such as the hermit hummingbirds, we are treated to views of their underbelly, as so they are perched directly above us. Species such as the Black-headed Parrot (Caique) *Pionites melanocephalus* and Orange-cheeked Parrot *Pionopsitta barrabandi*, Plate 75, are shown in flight from below, so that their distinctive underwing coloration is clearly visible. Other species, such as birds of prey, are also shown in flight.

Clemencia Rodner, also a Research Associate at the Phelps Ornithological Collection, wrote most of the species accounts and has been meticulous in

her research and observations. Miguel Lentino, Scientific Director/Curator of the collection, was responsible for the distribution maps.

Volume 1 also contains a 33-page discography of northern South American bird voices compiled by Shaun Peters. This novel idea, which will surely be emulated by all good field guides in the future, lists where recordings can be found for many species of the region.

Birds of Northern South America is in my opinion the best field guide ever produced. It will become essential to those visiting this part of South America and working in the field there and in museums, and enable law enforcement agencies to identify the many species from the region in their varied plumages. It will also be welcomed by aviculturists with a special interest in South American birds.

Birds of Northern South America: An Identification Guide, covers 2,308 species including all breeding species, regular visitors and vagrants. It has 306 colour plates, illustrating every distinct plumage of every species and subspecies. The distribution maps for all species, include their ranges in northern Perú and northern Brazil. It is published in paperback in the UK by Christopher Helm. Price £85 for the two-volume set. These are also available separately.

Ian Hinze

TAKING “PRETTY POLLY” SERIOUSLY

“The most charismatic of birds, parrots started the twentieth century as popular companions for those who could afford them. In their native habitats some island parrots suffered serious declines but in general parrots were thriving. Next to nothing was known about their lives in the wild. One hundred years later the picture had changed dramatically - for the worse. A mania for keeping parrots as pets had spread throughout the developing world. This resulted in millions of parrots being trapped from the wild every year with a high mortality and shocking cruelty and inhumane treatment. Parrots in their natural habitat were not having an easy time if it, either. Destruction of tropical forests had accelerated to an unprecedented rate. By the end of the century approximately one in four of the 340 or so species of parrots were at risk of extinction.” These words come from Rosemary Low’s latest book, *A Century of Parrots*, in which she takes a wide-ranging and critical look back at parrots and parrot keeping through the twentieth century.

In the early years parrot keeping was largely the preserve of the better off. Among Rosemary’s main sources of information for this period were articles in the *Avicultural Magazine* and *Bird Notes* and she mentions the parrot keeping activities of men such as Lord Poltimore, the Hon. and Rev.

Canon F. G. Dutton, who became Lord Sherborne, Maurice Amsler, E. J. Brook, Hubert Astley, Jean Delacour and the Marquis of Tavistock, who became the 12th Duke of Bedford, noting that the latter frequently attempted to keep his birds at liberty, including a pair of Lear's Macaws, usually with disastrous results. In the USA in the 1920s the commercial breeding of Budgerigars, already established in Japan, commenced in places such as Los Angeles and in 1930 Dr Karl Plath wrote in the *Avicultural Magazine* about his very tame Spix's Macaw.

In the 1970s rarities that had previously been seen only in zoos started to become commonplace. They were, Rosemary writes, amazing days, never to be repeated. Most small-scale importers looked after their birds well and there was little disease and suffering. The 1980s by contrast were, she believes, "the dark age" of aviculture. The worldwide trade in wild-caught parrots escalated. Parrots had become big business.

In the old Parrot House at London Zoo which Rosemary visited as a teenager, the parrots were, she recalls, kept in cramped and overheated accommodation - but in those days few people had seen these birds kept in any other way. In the 1970s-1980s birds gardens sprung up in the UK and Rosemary writes about these and the many avicultural rarities she saw in collections in Holland and Germany, the USA and at Loro Parque, as well as writing more briefly about collections in Asia, Australia, South Africa and South America.

The following three chapters - Trade throughout the Century, Smugglers and Thieves, and Ban the Trade! - cover the seamier side of bird keeping, about which many of us tried to "bury our head in the sand", or were largely powerless to do much about, but which is now, thankfully, largely (though I imagine not entirely) confined to the past. Rosemary presents a catalogue of sickening facts and figures about the trade in wild-caught parrots and how this affected (and continues to affect) the wild populations. She concludes: "It seems probable that in due course most countries will not allow the importation of wild-caught parrots." (Since that was written, the European Union has banned the import of all wild-caught birds, mainly because of the threat of avian flu.) The Lesser Sulphur-crested, Moluccan and Umbrella Cockatoos, Hyacinth, Lear's, Blue-throated and Military Macaws are among 16 species Rosemary lists as being endangered primarily due to trade. Adding: "Trade has had a serious negative impact on many other species for which habitat loss has been even more harmful." By the end of the century 45 species were under threat primarily due to habitat loss.

Rosemary believes that aviculture contributed very little to parrot conservation in the twentieth century. She believes that one way aviculturists could contribute would be to donate 1% of the annual income from the sale of their young parrots to a conservation organisation or project. She commends

the Loro Parque Fundación for by the end of 2005, having donated 2.85 million Euros (more than £2 million or US\$4 million) to conservation of wild parrots and scientific research. All of that money coming from the sale of young hatched there.

Towards the end of the twentieth century, Rosemary found there was more understanding of the physical needs of parrots and a growing band - though still very small - who insisted that parrots should be kept in large aviaries in which the emphasis was on environmental enrichment.

“Pretty Polly” was at last being taken seriously!

A Century of Parrots, 284 pages, large format, hard cover, with over 300 photographs, many in colour, is published by and available from: Insignis Publications, PO Box 100, Mansfield, Notts. NG20 9NZ, UK. Price £15.75 plus £3 postage in the UK, 38 Euros in Europe. Cheques should be made payable to Rosemary Low. Tel/Fax:01623 846430/E-mail:rosemary.low@virgin.net

Malcolm Ellis

NEWS & VIEWS

CHAIRMAN'S TRIUMPH

Much to the delight of Avicultural Society Chairman Christopher Marler, his American Bald Eagles *Haliaeetus leucocephalus* have succeeded in raising their 30th chick. It is a record for a pair of Bald Eagles in captivity, that he believes is unlikely to be beaten. In the *Avicultural Magazine* Vol.110, No.2, pp.49-53 (2004), Christopher described how he came to acquire the pair, the female from Canada and the male from Frankfurt Zoo, where it was bred, and how between 1986-2003, the two Bald Eagles raised the first 28 of their record-breaking 30 young.

* * *

BLUE MACAWS AND OTHER RARE PARROTS

By April three Spix's Macaws *Cyanopsitta spixii* had already been hatched at Al Wabra Wildlife Preservation (AWWP) in Qatar. They brought the Al Wabra population up to 50 birds. When the New Year was just four days old, another chick was hatched in the Loro Parque Fundación (LPF) parrot collection. It was the pairs' fourth chick. At 37 days old, the chick which was hand-reared, weighed 288g, having weighed just 14.4g when it hatched.

The two pairs of Lear's Macaws *Anodorhynchus leari* received last November, are now installed in aviaries at the LPF's La Vera Breeding Centre. They have a naturalistic-looking reddish-coloured artificial cliff- or rock face, with two holes (used for roosting), at the end of which are two wooden nest boxes. The first egg was irreparably damaged, so the second egg that was laid was removed at the earliest opportunity. It was slightly damaged, but was repaired and placed with an experienced pair of Green-winged Macaws *Ara chloropterus*. On hatching the Lear's Macaw chick weighed just 20g, but three weeks later its weight had increased to 495g.

Following a succession of infertile eggs, the introduction of a new male St Vincent Parrot *Amazona guildingii*, received from Martin Guth of Berlin, will it is hoped lead to the successful breeding of this species. After years of trying different techniques, Curator Matthias Reinschmidt believes they have finally cracked the secret of successfully breeding Pesquet's Parrot *Psittichas fulgidus*. Following the hatching of the latest chick, the Loro Parque population of this New Guinea parrot has increased to 10 birds.

OBITUARY

MIKE REYNOLDS

Mike Reynolds died on April 14th 2007, at his home at Paradise Park, Hayle, Cornwall. He was 76.

In 1949, he entered the Royal Military Academy Sandhurst and from 1955-1968 worked in marketing and advertising. He was the creative director of the team that created the Milky Bar Kid, part of a highly successful advertising campaign that still features at No.27 in the UK TV adverts' Top 100 of all time.

During that period he owned several pairs of parrots and harboured a dream of moving with his family to Cornwall and opening a bird garden. He eventually bought Glanmor House at Hayle, near St Ives, west Cornwall. Mike had the vision to recognise that the house and grounds would make an ideal setting - a 'paradise' - for his growing collection of birds. The Victorian walled garden offered a sheltered area for more delicate tropical species and he imagined large aviaries set in beautiful gardens and a new peaceful life in Cornwall.

In 1973, Mike opened his collection to the public and called it Bird Paradise (changed later to Paradise Park). Using his adman's flair, he built it into an award-winning tourist attraction. It is home to a wonderful collection of birds, including Hyacinth Macaws, flamingos, penguins, owls, turacos, Victoria Crowned Pigeons and many more. Species bred there have included the St Vincent Parrot, Blue-throated Macaw, Golden Conure, White-crested Turaco and Red-billed Chough.

Concerned about the plight of the Cornish (or Red-billed) Chough, the last of which had disappeared from the cliffs of Cornwall in the early 1970s, Mike played a big part in the setting up of Operation Chough, which aimed to restore this iconic bird to the cliffs of the county. Six aviary-bred Choughs were released into the wild in west Cornwall in 2003. This caused great controversy, coinciding as it did with the arrival in 2001 of wild Choughs - apparently from Brittany (north-west France) - on the south Cornish coast.

In 1989, Mike founded the World Parrot Trust, not only to safeguard species under threat, but to campaign for improvement in the welfare of captive birds. It plays a major role in parrot conservation, helping species such as the Echo Parakeet, St Vincent and St Lucia Parrots, Lear's Macaw and many others.

MIKE REYNOLDS - A PERSONAL APPRECIATION

by Dr Richard Meyer

I first met Mike in the early 1970s. I was lazing ‘on the gate’ at the fledgling Padstow Bird Gardens on a hot summer afternoon - one of those when potential visitors were on the beach, not tramping up the hill to visit us (this was before Rick Stein had become a celebrity chef, so the town was not the tourist trap, changed beyond recognition, that it is today). Mike seemed to approve of the book I was reading, which I think was Smythies’s *Birds of Burma* and not one of Gerald Durrell’s, which was my preferred reading at the time. Mike explained that he was looking to open something similar, and was keen to stress that his bird garden would not compete with ours but complement it.

He eventually set up his garden at Hayle, and in the planning stage would visit us quite regularly, often with his young family, and I got the impression he was escaping from busy city life, much as Jack and Peg Brown, owners of Padstow Bird Gardens, had done a few years earlier. I recall Mike escorting my wife, Mij, and me round and talking enthusiastically about his plans for the large site overlooking the estuary. We saw it develop from early rough timber enclosures and sheds about which he was always embarrassed and apologetic - to the impressive display it is today. As the gardens grew, Mike developed his conservation ethos along with his plans and ambitions. Bird Paradise became Paradise Park with Mike realising that tourism could fund conservation. This is not always a happy liaison for there are many who huff and puff at the idea of serious conservation sitting cheek by jowl with ice creams and amusements.

When I think of Mike, my main impression is that of a man with a big heart who could never see why anything was not possible. He was full of optimism and positive ‘can do’ thinking. Eventually he founded the World Parrot Trust, but the idea that Mike was only after personal glory is easily rebutted by the occasion when he was in line for Cornish Businessman of the Year (or some such title) which involved a dinner with HRH Prince Charles (Duke of Cornwall). Mike forgot to go.

Meanwhile, elsewhere in Cornwall, a special county with a special bird, the Chough, as its emblem, we saw the hypocrisy in preaching to the world about saving exotic avifauna while ignoring an extinction on our own doorstep. When I first went to Padstow in 1970, the last wild Cornish Chough was still literally hanging around the cliffs near Mawgan Porth. It soon died however. So one day I was driving up to Colwyn Bay in north Wales to collect from a quarryman the first Chough of our planned re-establishment programme, using aviary-bred birds. This was at the end of an era when

there was a tradition among quarrymen of keeping and showing the species. Colwyn Bay was the town where my father worked for much of his life so I knew it quite well and also the castle at Caernarvon, where the custodian had a tame Chough which spent its days strutting round the lawns begging for food off visitors; it was the first I ever saw and I had never forgotten it.

Down at Hayle, Mike was having similar ideas, and it was obvious the two bird gardens should work together. Early breeding attempts were frustrating but all breeders of wildlife are used to that and we were optimistic we would eventually breed enough for a re-establishment attempt. Other collections holding the species such as Paignton Zoo were keen to help. However, it would be wrong to release Choughs without first understanding why they had died out (there were almost as many theories as there were Choughs left in the UK) and, crucially, if the habitat could support them.

However, money was tight. One afternoon in company with Mike Coley - a fundraiser who was helping the Cornwall Wildlife Trust and who became a staunch ally - we called on Mike Reynolds. When we explained that the project was likely to founder for want of core funding, Mike quickly volunteered to sponsor a three-year PhD study with Glasgow University (who study the Chough in the Hebrides), with the words "Well, why don't we do it?" Thus Operation Chough was born. It was typical of Mike - he was a big man with a big impulsive heart, one that was always kind and generous. Fortunately his earlier *faux pas* did not prevent HRH Prince Charles from becoming a key supporter.

In the end, the three years became five, but in all that time, with all the controversy that a venture like this is bound to attract (and believe me, it did!), Mike never lost faith or regretted his generosity. I have always maintained, and have never yet been told otherwise, that this was the first instance of a private zoo funding primary ecological research.

* * *

MRS RUTH SAWYER

Mrs Ruth Sawyer (née Miss Ruth Ezra), President of the Avicultural Society, died on August 21st, aged 88, at home (Chestnut Lodge) with those she loved most of all. Ruth was elected President of the Avicultural Society in 1986 and played an active role in the society until shortly before her death. Appreciations of Ruth and A Personal Tribute will be published in the next issue of the magazine.

A CONSERVATION SUCCESS STORY

A year or two ago, Raymond Sawyer expressed concern that his friend the late John Yealland's role in saving the Néné or Hawaiian Goose *Branta sandvicensis* had been largely forgotten. I did not have all the facts and figures to hand at the time, it was only recently when looking for something else, that I stumbled upon some notes on the subject by Peter Scott (yet to be knighted) in the Diamond Jubilee Number of the *Avicultural Magazine* Vol.60, No.4, pp.114-115 (July-August 1954). His notes accompanied a film about saving this species, shown at an Avicultural Conference held at London Zoo, to celebrate the Avicultural Society's Diamond Jubilee.

By 1951, just some 32 were known to survive and the species was in danger of extinction. The previous year, 1950, the Wildfowl Trust (now the Wildfowl & Wetlands Trust) had sent John Yealland, its Curator, to Hawaii to advise and assist in the establishment of a breeding station for propagating the Néné or Hawaiian Goose at Pohakuloa. There he successfully raised a brood and, on his return to England, brought back two geese as a gift from Herbert Shipman, of Hilo, to whose interest the species owes its existence today. Both of the birds he brought back to Slimbridge laid eggs in March 1951. A gander was immediately flown from Hawaii, and during the 1952 breeding season nine goslings were reared. The same year three were raised at Pohakuloa, bringing the total number known to exist to 46. A further four goslings were raised at Slimbridge in 1953. In the Avicultural Society's Diamond Jubilee year, five goslings were hatched of which four were reared. Unfortunately one of the adults died and two young birds which had been lent to another breeder were accidentally poisoned, leaving the the Wildfowl Trust with 17, a quarter of the world population, thought in 1954 to be 68.

Between 1960-1995, more than 2,150 captive-bred Néné or Hawaiian Geese were released into the wild, mostly at two sites and, today, this species is well established in captivity and in the wild.

* * *

FIRST RECORD FOR HISPANIOLA

During a recent visit to Punta Cana in the Dominican Republic, André Dhondt and his wife Keila trapped the first Painted Bunting *Passerina ciris* ever recorded on the island of Hispaniola. The adult male was caught in a mist net on January 3rd 2007 and released after being weighed, measured and photographed. André Dhondt is Director of the Cornell Laboratory of Ornithology's Bird Populations Studies Programme. The lab is active in Latin America, where it continues to study the illegal capture of Painted Buntings for the bird trade.



CONTENTS

Memoir, notes and anthology arising from a visit to Brazil - Part 2 by Brian A. G. Hill	49
Keeping and hand-rearing Lear's Macaw <i>Anodorhynchus leari</i> at Al Wabra Wildlife Preservation by Simon Bruslund Jensen, Ryan Watson and Sven Hammer	57
Notes on a visit to Papua New Guinea by Ray Piper.....	73
Searches for the Blue-crowned Laughingthrush <i>Garrulax courtoisi simaoensis</i> in south Yunnan, south-west China by He Fen-qi, Lin Jian-sheng, Laura Gardner, Mary Richardson and Roger Wilkinson	78
Detering sinantropic animals: two bird feeders for this purpose developed at Belo Horizonte Zoo by João Bôsko Ferraz, Cristiano Schetini de Azevedo and Ângela Bernadete Faggioli	85
Book Reviews	
Birds of Northern South America	89
A Century of Parrots	90
News & Views	93
Obituary - Mike Reynolds	94
Mike Reynolds - A Personal Appreciation by Dr Richard Meyer	95
Mrs Ruth Sawyer	96